Yagna for the formation of rain clouds

2090. SHRI N. E. BALARAM:
SHRI GURUDAS DAS GUPTA:

Will the PRIME MINISTER be pleased to state:

(a) whether it is a fact that the Department of Science and Technology financed a yagna conducted for the formation of rain clouds recently in Mathura; and

(b) if so, the details thereof?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN): (a) and (b) In response to a request from Vrishti Vigyan Mandal, a registered society in Mathura, Department of Science and Technology gave, after a due process of evaluation, Rs. 10,000 as a one-time grant to examine the postulation that the ash and gases released through the burning of certain combinations of woods and other materials could result in ice-nucleating or hygroscopic-particulate-matter, the effect of which could be likned to what happens in artificial rainmaking. The project was asked to set down the success criteria according to which (i) the clouds were to form within 48 to 72 hours, i.e by 28 May, (ii) well spread rain of the order of a few centimentres to fall in the target area, which was defined as 10 miles radius, within three days of the formation of cloud, i.e. by 31 May 1988. However, (a) No cloud formation took place till 28 May, not even till 31 May May. (b) Rain also did not occur till 31 May. (b) To isolate the effects of large scale natural changes in atmospheric conditions from the local effect of Yagna, Department of Science and Technology considered an observatory in Taj, Agra as a control station Between 31 May and 1 June, large scale changes took place in the atmospheric circulation as predicted by India Meteorological Department (Lucknow Office). As a consequence of these large scale changes rainfall of 1.6 mm occurred in the area. As no cloud formed until May 28 and no rain occurred even on May 31 and as the little rain that occurred on 1 June was caused by the natural processes as indicated, the Yagna did not induce any rain, judging by the pre-determined success criteria.

Agreement with Soviet Union for supply of heavy water

2091. SHRI KAPIL VERMA:
SHRIMATI VEENA VERMA:
SHRI RAM CHANDRA VIKAL:

Will the PRIME MINISTER be pleased to state:

(a) whether there is an agreement with Soviet Union regarding supply of heavy water for our atomic power plants;

(b) if so, what are the provisions regarding safeguards, if any; and

(c) what is our agreement in this regard with International Atomic Energy Agency (IAEA)?

THE MINISTER OF STATE IN THE MINISTRY OF SCIENCE AND TECHNOLOGY AND THE MINISTER OF STATE IN THE DEPARTMENTS OF OCEAN DEVELOPMENT, ATOMIC ENERGY, ELECTRONICS AND SPACE (SHRI K. R. NARAYANAN): (a) Yes, Sir. There is an agreement with USSR about supply of Heavy Water for the Rajasthan Atomic Power Station.

(b) and (c) In terms of our agreement with International Atomic Energy Agency, heavy water supplied by the Soviet Union to the Rajasthan Atomic Power Station and nuclear materials produced using the heavy water of Soviet origin will be used exclusively for peaceful purposes.